



ICF International / Laboratory Data Consultants

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MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM) RF
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105041 Amendment 3

DATE: March 8, 2007

SUBJECT: Review of Analytical Data, Tier 2

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	Not Provided
SDG Nos.:	G5C020350 and G5C030251
Laboratory:	STL Sacramento
Analysis:	N-Nitrosodimethylamine and 1,2,3-Trichloropropane
Samples:	11 Water Samples (see Case Summary)
Collection Date:	March 1 and 2, 2005
Reviewer:	Santiago Lee, ESAT/Laboratory Data Consultants (LDC)

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

SAMPLING ISSUES: ☐ Yes ☒ No

Data Validation Report – Tier 2

Case No.: Not Provided
SDG Nos.: G5C020350 and G5C030251
Site: Omega Chem OU2
Laboratory: STL Sacramento
Reviewer: Santiago Lee, ESAT/LDC
Date: March 8, 2007

I. CASE SUMMARY

Sample Information

Samples: SDG G5C020350 = OC2-MW8A-W-0-118, OC2-MW8B-W-0-119, OC2-MW8C-W-0-120, OC2-MW8D-0-121, and OC2-MW9B-W-0-122
SDG G5C030251 = OC2-MW1A-W-0-123, OC2-MW1A-W-0-124, OC2-MW1A-W-1-125, OC2-MW1A-W-0-126, OC2-MW1A-W-0-127, and OC2-MW1A-W-0-128

Concentration and Matrix: Low Concentration Water

Analysis: N-Nitrosodimethylamine (NDMA) and 1,2,3-Trichloropropane (1,2,3-TCP)

Method: USEPA Method 1625, Semivolatile Organic Compounds by Isotope Dilution GCMS

Collection Date: March 1 and 2, 2005

Sample Receipt Date: March 2 and 3, 2005

Extraction Date: March 3 and 8, 2005

Analysis Date: March 3, 4, 10, and 11, 2005

Field QC

Field Blanks (FB): Not Provided

Equipment Blanks (EB): Not Provided

Background Samples (BG): Not Provided

Field Duplicates (D1): OC2-MW1B-W-0-124 and OC2-MW1B-W-1-125

Laboratory QC

Method Blanks & Associated Samples:

G5F6W1AA: OC2-MW8A-W-0-118, OC2-MW8B-W-0-119, OC2-MW8C-W-0-120, OC2-MW8D-0-121, and OC2-MW9B-W-0-122

G5Q4J1AA: OC2-MW1A-W-0-123, OC2-MW1A-W-0-124, OC2-MW1A-W-1-125, OC2-MW1A-W-0-126, OC2-MW1A-W-0-127, and OC2-MW1A-W-0-128

Tables

1B: Data Qualifier Definitions for Organic Data Review

Sampling Issues

None.

Additional Comments

As directed by the EPA TOM, a Tier 2 review was performed (review all QC results and calibrations, minus calculation check). Table 1A is not required.

Method specific quality control (QC) limits are used to evaluate the quality of data. For QC where the method does not specify limits, laboratory QC limits are used.

Although NDMA was found in method blank for SDG G5C020350 (30 ng/L), no data are qualified since NDMA was not found in the samples.

Although NDMA recovery for laboratory control sample G5F6W1AC (180%) exceeded the QC limit of 25-150%, no data are qualified since NDMA was not found in the samples.

This report was prepared in accordance with the following documents:

- USEPA Office of Water, *Method 1625C: Semivolatile Organic Compounds by Isotope Dilution GCMS*, June 1989;
- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages*; and
- *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	<u>Parameter</u>	<u>Acceptable</u>	<u>Comment</u>
1.	Holding Time/Preservation	Yes	
2.	GC/MS Tune/GC Performance	Yes	
3.	Initial Calibration	Yes	
4.	Continuing Calibration	Yes	
5.	Laboratory Blanks	Yes	
6.	Field Blanks	N/A	
7.	Matrix Spike/Matrix Spike Duplicates	N/A	
8.	Laboratory Control Samples	Yes	
9.	Internal Standards/Surrogates	No	A
10.	Compound Identification	Yes	
11.	Compound Quantitation	N/A	
12.	System Performance	Yes	
13.	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. Results for the following analyte are qualified as estimated due to internal standard/surrogate recoveries outside the QC limit and should be flagged "J".

- NDMA in all samples, method blanks G5F6W1AA-MB and G5Q4J1AA-MB, and LCS G5F6W1AC-LCS and G5Q4J1AC-LCS

Internal standard/surrogate recoveries fell below the QC limit as shown below.

<u>Sample</u>	<u>Internal Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>
OC2-MW8A-W-0-118	NDMA-d6	15	25 - 150
OC2-MW8B-W-0-119	NDMA-d6	14	25 - 150
OC2-MW8C-W-0-120	NDMA-d6	13	25 - 150
OC2-MW8D-W-0-121	NDMA-d6	15	25 - 150
OC2-MW9B-W-0-122	NDMA-d6	15	25 - 150
G5F6W1AA-MB	NDMA-d6	14	25 - 150
G5F6W1AC-LCS	NDMA-d6	16	25 - 150
OC2-MW1A-W-0-123	NDMA-d6	19	25 - 150
OC2-MW1A-W-0-124	NDMA-d6	21	25 - 150
OC2-MW1A-W-1-125	NDMA-d6	19	25 - 150
OC2-MW1A-W-0-126	NDMA-d6	21	25 - 150
OC2-MW1A-W-0-127	NDMA-d6	20	25 - 150
OC2-MW1A-W-0-128	NDMA-d6	24	25 - 150
G5Q4J1AA-MB	NDMA-d6	21	25 - 150
G5Q4J1AC-LCS	NDMA-d6	20	25 - 150

Results for NDMA are considered quantitatively questionable. Where results are nondetected, false negatives may exist.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999.

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.